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November 2, 1970

Statement of Drs. David A. Hamburg and Joshua Lederberg on their role in the Program on a Technology-Dependent Civilization.

The following statement, based upon remarks in the NSF proposal at pages 9-10, encompasses the role we expect to play in the program.

To add to our competence in managing this program, this Center will appoint Professors David A. Hamburg and Joshua Lederberg as Biologists in Residence, and as members of the Advisory Board which will guide our program designed to inquire into the social consequences of science and technological change. Other members of the Advisory Board will include Robert K. Merton, of Columbia University; Caryl P. Haskins, of Carnegie Institution of Washington, D.C.; a physical scientist of comparable national stature; and O. Meredith Wilson, the Director of this Center. The functions of the Advisory Board will include:

- 1. Continuous review and definition of the program.
- Nominating and recruiting the relevant fellows.
 This will entail much more than the identification of individual talents, since many of the people we would most avidly seek will make their decision on the strength of the collective effort.
- 3. A careful reevaluation of its own membership and the power to expand itself when circumstances require.
- 4. Periodic meetings (at least quarterly) in which careful assessment of progress, suggestions of new avenues of inquiry and nominations of scholars for the program will be central to their agenda.
- 5. Reviewing related programs of other institutions. When considered wise, development of a cooperative relationship with similar councils, centers and institutions to avoid wasteful duplication and to get reinforcements for its own program.

In addition, as Biologists in Residence, Professors Hamburg and Lederberg, who have agreed to appointments for from ten to twenty percent of their time, will:

- Aid us in making appropriate arrangements for laboratory facilities for experimental biologists whose work requires continuing contact with a laboratory.
- 2. Participate as Fellows in Residence by organizing, facilitating, and contributing to seminars on both

the general and the applied problems.

 Maintain a critical overview of the program as a whole for reports and justification to funding sources.

Besides affirming our understanding and interest in the commitment thus stated, we can add little except that we expect to have the responsibility for maintaining the continuity of the program from year to year, and for the breadth of the intellectual base of the program.

Our participation is expected to require "office hours" of about 4 per week, on a regular schedule, in addition to frequent participation in seminars, lunch meetings, and like communications that we will help to organize. While these are crystallizing our time commitment at the Center is likely to fluctuate between 10 and 20% of our time.

In addition, most of our educational efforts, and a significant part of our research, away from the Center, are still devoted to very closely related kinds of Issues.

However, the group of fellows, whom we would help to recruit from year to year, represent a potential faculty of colleagues who could not possibly be matched at Stanford, or at any other single university campus in the world. The opportunity of working in the company of such a group is the major incentive to our participation in the program, and gives us the optimism that we may be able to reach a new level of critical and constructive study of problems of the uses of technology. We are well aware that the whole institution of scientific research is at stake, a concern which touches us particularly as scientists, while we also try to satisfy our consciences about our civic responsibilities.

The time has long passed for reflexive, defensive arguments about the utility of science for its own sake. We do not need to question this, nor do we; but we must also seek more effective ways of discovering and communicating whatever objective truth can be found about the imperfect adjustments of technological progress to human needs and their further amelioration.